

## Basket of Energy Benefits for Iowa

Iowa's rolling landscape is ideal for growing abundant crops of corn, soybeans, oats, and hay, making it the nation's breadbasket. However, this level terrain also allows the snow and wind to sweep across the land, making it difficult for Iowans to keep their homes warm. This is particularly true for low-income Iowans who shoulder a disproportionate energy burden. They typically spend 14% of their total income on energy bills, while other households spend only 3.5%. To alleviate this burden, Iowa partners with the U.S. Department of Energy (DOE) to implement the Weatherization Assistance Program (Weatherization). Weatherization reduces energy costs for low-income households by improving the energy efficiency of their homes, while ensuring their health and safety.

### IMPROVING CONSUMPTION

With advanced technology, farmers can cultivate more resilient crops that are resistant to disease and pests. Similarly, Weatherization integrates sophisticated technology and innovative techniques to develop better, long-term solutions to energy problems. Iowa's Department of Human Rights administers the program and 18 local agencies deliver weatherization services to eligible residents across the state.

Weatherization technicians use a computerized energy audit to determine the most cost-effective measures to install in each home. Diagnostic tools, like the blower door, manometer, and pressure pan, are used to detect and mitigate air infiltration, duct leaks, and pressure imbalances. Iowa crews also test heating systems and gas appliances for carbon monoxide, an odorless, colorless gas that can be deadly in large quantities.

Typical weatherization measures include blowing insulation; sealing doors and windows; duct sealing; and basic heating and cooling repair. Clients are also educated on proper use and maintenance of the measures installed.

### NATIONAL WEATHERIZATION PROGRAM

Homes weatherized in 1999	68,000
DOE allocations in 1999	\$135 million
Average annual energy cost savings per household	\$300
Average space heating savings	25-30%
Energy benefits returned for every \$1 invested	\$2.10
Jobs supported	7,000

### IOWA

Homes weatherized in 1999 (with DOE \$)	1,176
DOE funding in 1999	\$2.9 million
Clients served in 1999	3,266
Elderly	17%
People with disabilities	17%
Families with children (age 3 and younger)	8%

### FOOD OR FUEL

Though Iowa produces enough grain to meet the entire nation's nutritional needs, some Iowans go hungry due to the high cost of fuel. Darrell and Donna Millers\* worked hard to pay their bills. After Donna suffered a stroke, hospital costs began to mount and the Millers could not pay their energy bill. They recall, "We couldn't get all the food we needed. We eliminated almost all meat and tried to cut back more. Food is the first place you cut back." The Millers called Weatherization for assistance to reduce their energy bills.

The Millers are like millions of low-income Americans who cannot afford to pay their energy bills. Weatherization lessens the excessive financial burden of families most in need and eliminates the difficult choice between food or fuel. After Donald Kennett's\* home was weatherized, he wrote a letter of thanks stating, "I stayed much warmer during the past winter and saw quite a difference in my heating bill. Weatherization has helped make the quality of my life a little better and easier."

### SERVING UP HEALTH AND SAFETY

Weatherization does even more than save energy and money for low-income Iowans; often, weatherization crews save lives. Michael Parks\* contacted the local weatherization agency in Des Moines for help with his energy bills. The weatherization crew ran an energy audit on the home and tested the furnace for carbon monoxide. The test revealed that dangerous levels of carbon monoxide were seeping from the furnace. In addition to installing standard weatherization measures, crews repaired the unsafe furnace and provided Michael with a carbon monoxide detector and written instructions on how to operate it. Michael remarked, "I owe my life and health to this wonderful program. Thank you."

Weatherization measures prevent people from taking risks to keep warm. Before her home was weatherized, Rosemary Gem\* from Ida Grove sealed off the upper half of the house and only ran the furnace at night. When the heating bills began to mount, she turned off the heater and turned on the oven for warmth, a dangerous and ineffective practice. After the weatherization work was complete, Rosemary wrote, "Thank you...I am not using my oven for heat. I hope wonderful help like this can be extended to other working people who don't make enough."



*Iowa crews use a digital manometer, like this one, to identify air pressure imbalances.*

### CULTIVATING NEW RESOURCES

Iowa's Weatherization Program recognizes that cultivating resources is crucial to success. Leveraging additional dollars from the state, utilities, and other organizations helps to enhance program capabilities. In 1999, Iowa leveraged \$3 million to weatherize 1,173 additional homes.

Creative partnerships provide real nourishment to the program by opening new avenues to energy savings. The Baseload Reduction Program, a partnership between the utility companies and Weatherization, reduced electric base load consumption in low-income homes through a pilot refrigerator replacement

initiative. The program installed new, energy-efficient refrigerators and freezers into low-income homes. The measures proved to be cost-effective and reduced energy consumption. Iowa is currently developing a protocol for integrating this activity into the state's existing program.

### HARVESTING THE RESULTS: WEATHERIZATION WORKS!

Weatherization provides long-term solutions to energy problems for individuals and communities. Nationally, for every \$1 invested in the program, Weatherization returns \$2.10 in energy-related benefits. Weatherization curbs national energy demand and reduces consumption of imported oil. Weatherization works for Iowa and America!

*\*Names have been changed to protect the privacy of the subjects.*



### TO LEARN MORE ABOUT THE WEATHERIZATION ASSISTANCE PROGRAM, CONTACT:

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Visit the Weatherization Web site at: [www.eren.doe.gov/buildings/weatherization\\_assistance](http://www.eren.doe.gov/buildings/weatherization_assistance)  
or call the Energy Efficiency and Renewable Energy Clearinghouse at: 1-800-DOE-3732



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